

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
CORPUS CHRISTI DIVISION**

MARC VEASEY, <i>et al</i> ,	§	
	§	
Plaintiffs,	§	
VS.	§	CIVIL ACTION NO. 2:13-CV-00193
	§	
RICK PERRY, <i>et al</i> ,	§	
	§	
Defendants.	§	

**REBUTTAL DECLARATION OF JEFFREY MILYO**

I, Jeffrey Milyo, do hereby declare the following:

**I. Statement of Inquiry:**

1. I have been asked by the State of Texas to review the expert reports submitted on behalf of plaintiffs and to comment on the quality of the arguments made regarding the recently implemented voter identification law in Texas (SB 14).
2. I have received and reviewed a total of seventeen expert reports that were submitted by the plaintiffs. These are the primary materials that I rely upon in conducting this review. In some instances, I also examine data sets and scholarly literature used or cited by these experts. I also rely on my knowledge of the relevant scholarly literature; all outside sources that I employ are cited in this report.
3. Given the limited time available to me, this review is not intended to be comprehensive or exhaustive. For this reason, I select what are (in my opinion and given my expertise) some of the important weaknesses in the arguments and evidence presented by the experts for the plaintiffs. As a further consequence, I may amend or revise this report as additional evidence and arguments come to my attention.
4. Also, as I was completing my report, I became aware that experts for the plaintiff may not have been provided with all relevant records from the Texas Department of Public Safety. However, the substance of my report has not been written with foreknowledge of this event. My understanding is that experts for the plaintiffs may revise their reports; so accordingly, I also reserve the right to amend and revise my analysis in response.
5. The State of Texas is compensating me for any subsequent testimony in this case at the rate of \$400 per hour. To date, I have been paid \$15,000 for my work in this case.

## II. Qualifications:

6. I am a professor of economics and adjunct professor of political science at the University of Missouri in Columbia, Missouri. I was named the Middlebush Professor of Social Science at the University of Missouri (MU) for the academic years of 2008-2013. In addition, this fall I will be inducted into the 21<sup>st</sup> Century Corps of Discovery; this honor is given annually to one MU professor to highlight outstanding scholarship.<sup>1</sup> A current vita is appended to this report.

7. I received my Ph.D. in economics from Stanford University in 1994. In addition to my current faculty appointment at MU, I have served on the faculty in the economics and political science departments at Tufts University; the Harris School of Public Policy at the University of Chicago; and the Truman School of Public Affairs at the University of Missouri.

8. I have also been a visiting scholar in the political science department at Washington University in St. Louis, MO; the political science department at the Massachusetts Institute of Technology in Cambridge, MA; the Institute for Social and Policy Studies at Yale University in New Haven, CT; and both the Center for Economic Policy Research and the Hoover Institution at Stanford University in Stanford, CA. I have also been a non-residential fellow at the Safra Center for Ethics at Harvard University.

9. My area of expertise is American political economics and policy evaluation. My scholarly research has been published in several academic journals, including: the *American Economic Review*; the *American Journal of Public Health*; the *Election Law Journal*; the *Journal of Health, Politics, Policy and Law*; the *Journal of Human Resources*; the *Journal of Law and Economics*; the *Journal of Policy Analysis and Management*; the *Journal of Politics*; *Legislative Studies Quarterly*; *Public Choice*; the *Quarterly Journal of Economics*; *Social Science Quarterly*, and the *State Politics and Policy Quarterly*. I am also a frequent reviewer of submissions to these and several other academic journals.

10. I have taught a variety of undergraduate and graduate-level courses; these include courses on: American politics, law and economics, political economics, public economics, and public policy.

11. I am a senior fellow at the Cato Institution and an academic advisor the Center for Competitive Politics in Washington, DC. I recently served on the Election Reform Task Force for the Bipartisan Policy Center in Washington, DC. I also served as a member of the research staff for the Presidential Commission on Election Administration.

12. In 2007, I submitted written testimony on voter identification laws to the United States House Administration Committee; in 2008, I appeared as a witness in a public hearing on voter identification before the United States Senate Committee on Rules and Administration.

13. I have also produced expert reports in the following state and federal election law disputes:

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<sup>1</sup> See: <http://provost.missouri.edu/awards/campus-awards/corps.php>.

(a) In 2003, I produced an expert report in an election dispute in the New Jersey state courts (*Re: The Contest of the Democratic Primary Election of June 3, 2003 for the Offices of Assembly and Senate, 31st Legislative District, Docket No. HUD L-3947-03 and HUD-L-3948-03 (Consolidated)*); my report described the impact of illegal campaign contributions on the outcome of several statehouse races in the Democratic primary in New Jersey.

(b) In 2006, I co-produced an expert report in a dispute over voter I.D. laws in the Missouri state courts (*Kathleen Weinschenk, et al. v. State of Missouri et al. and Jackson County, Missouri v. State of Missouri (Consolidated)*); my report described the number of legal voters that might be deterred from voting under Missouri's recently enacted (and subsequently overturned) law requiring photo identification at polling places.

(c) In 2006, I produced an expert report in a dispute over monetary damages in the New Hampshire state courts (*Buckley, et al. v. New Hampshire Republican State Committee, et al.*); my report was in regard to the amount of damages resulting from the illegal jamming of several phones in the headquarters of the New Hampshire Democratic Party on Election Day in November 2002.

(d) In 2007, I produced an expert report and was deposed in a dispute in federal district court that involved state campaign finance disclosure laws in ballot measure elections in Colorado (*Sampson v. Coffman*); my report examined the ability of ordinary citizens to comply with Colorado's disclosure requirements for issue committees.

(e) In 2008, I produced an expert report and was deposed in a dispute in federal court over federal contribution limits for groups that make independent expenditures (*SpeechNow.Org v. FEC*); my report examined the impact of contribution limits on the ability of independent citizen groups like SpeechNow to raise funds for the purpose of making independent expenditures.

(f) In 2011, I produced a report and was deposed in a dispute in federal court over Washington State's disclosure requirements for groups engaged in grass roots issue advocacy (*Many Cultures, One Message, et al., v. Clements, et al.*); my report analyzed the impact of Washington's Grass Roots Lobbying Law (Wash. Rev. Code § 42.17.200) on the ability of citizens to freely exercise their First Amendment rights to speak, associate, assemble and petition government.

### **III. Summary of Findings:**

14. Experts for the plaintiffs assert that more than one million otherwise eligible voters in Texas lack SB 14 ID (or about 9% of registered voters). I demonstrate that these estimates are highly exaggerated. Moreover, I demonstrate that the methods employed by experts for the plaintiffs are expected to generate a large upward bias in the estimated number of eligible voters without ID. Given this, the analyses proffered by experts for the plaintiffs relating to the number or percent of voters who lack SB 14 ID are unreliable and misleading.

15. Experts for the plaintiffs assert that black and Hispanic voters in Texas are significantly more likely to be without requisite voter ID under SB 14. These estimated differences vary considerably across

experts; however, I demonstrate that all of these estimates are highly exaggerated. Moreover, I demonstrate that the methods employed by experts for the plaintiffs are expected to yield exaggerated estimates of the differences in rates of ID possession by race and ethnicity. In contrast, my re-examination of the survey data reported by Barreto and Sanchez reveals no statistically significant difference in rates of ID possession by race or ethnicity. Consequently, the analyses proffered by experts for the plaintiffs relating to the disproportionate number of black and Hispanic voters who lack requisite ID under SB 14 ID are unreliable and misleading.

16. Experts for the plaintiffs assert that there are substantial costs of obtaining voter identification and that these costs are particularly burdensome for black and Hispanic voters in Texas. However, these claims ignore the ability of individuals to economize such costs as well as the potential for outside assistance. Further, the costs of obtaining voter ID should be apportioned over multiple years and elections. Consequently, experts for the plaintiff greatly exaggerate the net costs of obtaining ID. Moreover, the estimated travel costs to obtain a free EIC are found to be higher for white voters versus black voters.

17. Experts for the plaintiffs argue that a small increase in the cost of voting from SB 14 will have the effect of suppressing turnout among blacks and Hispanics in Texas. However, the primary support for these claims is a defunct theory of voting from more than 50 years ago. I demonstrate that the theoretical effects of SB 14 on turnout are ambiguous, so that the claims regarding turnout can only be evaluated empirically. However, the most relevant empirical literature on the effects of voter ID laws and turnout provides no strong or consistent support for these claims. Instead, recent evidence suggests that state voter ID laws may have a mobilizing effect on voter turnout, even or especially among minority voters. The experts for the plaintiffs fail to acknowledge this directly relevant scholarly literature. Experts for the plaintiffs also fail to conduct any systematic statistical analysis of the treatment effects of state voter ID laws on turnout in their reports. For example, there have been several elections since the implementation of SB 14 in Texas; these elections provide a “natural experiment” for analyzing the impact of SB 14 on voter turnout. Taken together, these failures call into question the reliability of the experts for the plaintiffs.

#### **IV. Introduction:**

18. In my opinion, the arguments presented in the seventeen expert reports submitted by plaintiffs may be summarized as follows:

(a) *Voters without ID*: About 1.2 million eligible voters in Texas do not possess the types of identification required to cast a regular ballot at the polls under SB 14.

(b) *Differences in the Possession of ID*: Otherwise eligible black and Hispanic voters in Texas are significantly less likely to possess the types of identification required to cast a regular ballot at the polls under SB 14.

(c) *Costs of Obtaining ID*: The costs associated with meeting the identification requirements in SB 14 are substantial and these costs are especially burdensome for otherwise voting-eligible black and Hispanic citizens of Texas.

(d) *Voter ID as an Obstacle to Voting*: SB 14 will have the effect of substantially and disproportionately suppressing turnout among otherwise eligible black and Hispanic voters.

(e) *Racially Discriminatory Intent*: SB 14 was passed with the intent to substantially and disproportionately suppress turnout among otherwise eligible black and Hispanic voters.

Given the limited time available to me, I consider only the first four of these arguments (a-d). However, my findings are sufficient to severely undercut the fifth and final argument (e).

## **V. Voters without ID**

19. Experts for the plaintiffs estimate the number of persons without acceptable identification under SB 14. Any such estimate involves some degree of uncertainty and is subject to bias. I demonstrate in this section that experts for the plaintiffs do not sufficiently acknowledge the uncertainty and bias in their estimates and do not take sufficient care to reduce bias in their estimates. Consequently, the estimates of the number or percentage of voters in Texas who lack requisite ID proffered by experts for the plaintiff are overstated and unreliable.

20. Experts for the plaintiffs employ two different methods for estimating the number of voters who lack requisite ID under SB 14; the first involves database matching and the second is based on an opinion survey. I consider each of these methods in turn.

### *Database Matching Method*

21. One method by which the number of persons without acceptable identification may be estimated is by comparing the names of persons contained in the Texas Election Administration Management (TEAM) database to the names of persons listed in other state and federal databases. This matching process is described in detail in the expert report submitted by Dr. Ansolabehere. However, I am unaware of any scholarly studies that analyze the effects of voter ID by examining “non-matches” between a state voter registration database and external databases, as done by experts for the plaintiffs. There are several problems with this approach, some of which I describe below.

22. It is well known that state registration databases contain errors and that in general counts from such databases exaggerate the actual number of eligible and currently registered voters. For example, in his expert report for the plaintiffs, Dr. Ansolabehere notes that “All states that have voter registration will have at least some registrations that are out-of-date or invalid but still on the rolls, for a wide variety of reasons.”<sup>2</sup> It is for this reason that much of the scholarly research on voter turnout in the United States eschews measures of turnout as a percent of registered voters and instead examines turnout relative to voting age population (VAP), citizen voting age population (CVAP), or voting eligible

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<sup>2</sup> Report by Stephen Ansolabehere, p. 37.

population (VEP).<sup>3</sup> I am unaware of any scholarly studies that attempt to estimate the effects of voter ID by matching records to a state voter registration database.

23. The number of deadwood records in state voter registration databases is generally understood to be large.<sup>4</sup> For example, one recent study found that official voter registration records imply that about 81.2% CVAP are registered to vote, while self-reports from the Current Population Survey (CPS) suggest only 72.9% of CVAP are registered to vote.<sup>5</sup> This alone suggests that more than 10% of voter registration records are deadwood.<sup>6</sup> Even so, this figure likely understates the percent of deadwood in state voter registration databases.

24. The CPS estimates the number of registered voters by summing the number of respondents that self-report voting and the number of non-voters who self-report being registered to vote.<sup>7</sup> However, it is well-known that survey responses generally exaggerate socially desirable behavior, such as registering and voting.<sup>8</sup> Further, one recent study finds that over-reports of voting in the CPS are highest in Southern states and in states with more minority population.<sup>9</sup> Moreover, this same study finds that self-reported turnout in the CPS exceeds actual turnout in Texas by more than 14 percentage points.

25. For the sake of illustrating the potential magnitude of deadwood in state voter rolls, I will assume that the rate of over-reporting of registration in the CPS is similar to the rate of over-reporting of voter turnout.<sup>10</sup> Combining these over-reporting percentages in the studies cited above then implies that about 24% of registered voters in Texas may be deadwood.

26. To the extent that the state of Texas has improved the quality of its registration data in recent years, the actual percentage of deadwood in the TEAM database may well be lower than 24%, but the percentage is certainly not zero. For example, Dr. Ansolabehere has claimed that there have been improvements in the quality of state voter registration records, but he still describes state registration

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<sup>3</sup> For example, see McDonald, Michael P. and Samuel L. Popkin. 2002. "The Myth of the Vanishing Voter." *American Political Science Review*, 95(4): 963–74; and Burden, Barry. 2000. "Voter Turnout and the National Election Studies" *Political Analysis*, 8(4): 389–398.

<sup>4</sup> For ease of exposition, I will use the term "deadwood" to describe any name listed in a database of registered voters that is not a real person, not alive, not residing at that address, or otherwise not actually an eligible voter.

<sup>5</sup> McDonald, Michael P. 2007. "The True Electorate: A Cross-Validation of Voter Registration Files and Election Survey Demographics." *Public Opinion Quarterly*, 71(4): 588–602.

<sup>6</sup>  $[100\% * (81.2 - 72.9)/81.2]$ .

<sup>7</sup> "About Voting and Registration" at <http://www.census.gov/hhes/www/socdemo/voting/about/index.html> (last viewed July 16, 2014).

<sup>8</sup> E.g., Holbrook, Allyson L. and Jon A. Krosnick 2010. "Social Desirability Bias in Voter Turnout Reports: Tests Using the Item Count Technique," *Public Opinion Quarterly*, 74(1): 37–67.

<sup>9</sup> Bernstein, Robert A., Anita Chandha and Robert Montjoy 2003. "Cross-State Bias in Voting and Registration Overreporting in the Current Population Surveys," *State Politics & Policy Quarterly*, 3(4): 367–386.

<sup>10</sup> This may be conservative given that Dr. Ansolabehere has estimated that 64% of non-registered survey respondents report that they are registered to vote; see: Ansolabehere, Stephen and Eitan Hersch 2012. "Validation: What Big Data Reveal About Survey Misreporting and the Real Electorate," *Political Analysis*, 20: 437–459.

data as “messy” and notes that any attempts by researchers to remove deadwood are necessarily imperfect and incomplete.<sup>11</sup>

27. Elsewhere, Dr. Ansolabehere has identified anomalies in Texas voter registration data that may suggest a large number of errors and deadwood in the TEAM database.<sup>12</sup> These include an implausible number of persons with birthdates on November 11th and an unusually large discrepancy between the number of voter registration records in Texas obtained by Catalist in 2010 and the official state count of registered voters at that time. These findings by Dr. Ansolabehere raise concern about the quality of voter registration data in Texas, as well as the quality of data collection and matching by Catalist. However, in his same report, Ansolabehere advises caution in interpreting these numbers and notes that he is “still working” on understanding the state-specific issues with list quality.

28. The presence of invalid records in state voter registration rolls means that the database matching method will produce non-matches for reasons unrelated to whether an individual possesses requisite ID under SB 14.

29. Not only is the quality of state voter registration data well understood to be problematic, but other state and federal databases are also not infallible. For example, one of the experts for the plaintiffs, Mr. Wood, asserts that voter registration record in Texas “often” do not match DPS records.<sup>13</sup> This only serves to increase the expected number of non-matches that will occur for reasons unrelated to whether an individual lacks requisite ID under SB 14.

30. Given the multiple sources of non-matches, it is a reasonable *a priori* expectation that the matching methods employed by experts for the plaintiffs will exaggerate the number and percentage of otherwise eligible voters who lack requisite voter ID. Also, given the studies cited above, the expected number of non-matches for reasons unrelated to possession of voter ID is likely to be quite large. As a first pass estimate, the percentage of such non-matches relative to the number of records in the TEAM data is surely greater than 0% and possibly as high as 24%, or even higher. Failure to account sufficiently for these various sources of non-matches will result in an over-estimate of the number of registered voters who lack voter ID.

31. In his expert report for the plaintiffs, Dr. Herron states there are 13,564,410 registered voters in Texas.<sup>14</sup> Dr. Herron is clear to note that by “registered voters in Texas, or lists thereof” he is referring to “registered voters in the state as of January 15, 2014.”<sup>15</sup> However, given the discussion above it is obvious that this figure likely overstates the actual eligible and registered voters by some non-trivial amount.

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<sup>11</sup> Ansolabehere, Stephen and Eitan Hersh 2012. “Validation: What Big Data Reveal About Survey Misreporting and the Real Electorate,” *Political Analysis*, 20: 437-459.

<sup>12</sup> Ansolabehere, Stephen and Eitan Hersh 2012. “The Quality of Voter Registration Records: A State-by-State Analysis,” *CalTech/MIT Voting Technology Project Report* (July 14, 2010).

<sup>13</sup> Report of Randall Buck Wood, p. 6.

<sup>14</sup> Report of Michael Herron, p.6.

<sup>15</sup> Herron, p. 8.



32. Dr. Herron also finds that “conservatively speaking” 1,232,240 registered voters (or 9.08%) “appear to lack access to valid forms of identification per current Texas law.”<sup>16</sup> Further, Dr. Herron reports that if the “45,514 registrants who appear to be deceased are ignored, then approximately 9.11% of the registrant pool in Texas lacks identification.”<sup>17</sup> This last statement implies that none of the “no match” cases were among those who “appear to be deceased.”<sup>18</sup> This immediately raises the concern that some number of the “no match” records in Dr. Herron’s analysis are also deceased voters that either can’t be determined to be deceased or for some reason haven’t been checked to see if they “appear to be deceased.” Consequently, this adjustment by Dr. Herron is expected to be incomplete and likely further exaggerates his estimate of the percentage of voters who lack ID.

33. Moreover, given the preceding discussion on the extent of errors and deadwood in state voter registration rolls, Herron’s matching methodology is expected to result in a large number of non-matches for reasons that have nothing to do with a voter lacking ID. Nevertheless, Herron asserts that non-matches represent registered voters in Texas who lack requisite voter identification under SB 14. In my judgment this claim is highly exaggerated and misleading.

34. Elsewhere, Dr. Herron exhibits care to emphasize that not all matches should be considered persons who actually possess voter identification. For example, “if a hypothetical registered Texas voter in the TEAM database can be associated with a record in, say, the Texas driver’s license database, then, assuming this association is valid, it can be said that the registered voter was issued a valid Texas driver’s license that, as of a given date, was still valid.”<sup>19</sup> It is unclear why a similar degree of care is not taken in describing non-matches.

35. While it is clear that Dr. Herron has exaggerated the number of real persons who are legally registered voters and lack voter identification, the degree of this exaggeration is not immediately apparent. To get a sense of just how misleading Dr. Herron’s reported findings are, it is useful to compare his analysis to that in the expert report of Dr. Ansolabehere.

36. Dr. Stephen Ansolabehere likewise finds, upon initial examination, that about 1.2 million registered voters in Texas (or 9.1%) do not possess acceptable SB 14 photo identification.<sup>20</sup> However, Dr. Ansolabehere also makes a greater effort to remove various non-matches that do not represent real and legally registered voters who lack necessary identification under SB 14. The end result of this process is an estimate of 664,004 remaining non-matches.<sup>21</sup> Taking this latter figure from Ansolabehere’s analysis at face value implies that Herron has over-estimated the number of non-matches that represent actual registered voters lacking necessary ID by about 85%.<sup>22</sup>

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<sup>16</sup> Herron, p.6.

<sup>17</sup> Herron, p. 6.

<sup>18</sup> Note that  $9.11\% = 100\% * [1,232,240 / (13,564,410 - 45,514)]$ .

<sup>19</sup> Herron, p.10.

<sup>20</sup> Ansolabehere, p. 8.

<sup>21</sup> Ansolabehere, p. 41-42 and Table VII.1.

<sup>22</sup>  $[(1,232,240 - 664,004) / 664,004] * 100\%$



37. Moreover, in reviewing Dr. Ansolabehere's report (below), I will show that the estimate of 664,004 registered voters lacking requisite ID is also likely to be over-stated. Consequently, while it is by no means clear exactly how exaggerated Dr. Herron's findings are, it is clear that they are highly exaggerated. Further, Dr. Herron conducts his analysis in a manner that is expected to produce a dramatic over-estimate of the number of registered voters who lack sufficient ID under SB 14.

38. Dr. Ansolabehere states that the TEAM database contains 13,564,416 records as of January 15, 2014. This total is nearly identical to that reported by Dr. Herron in his report (13,564,410 records). Starting from this base, Dr. Ansolabehere finds that "approximately 1.2 million voters in Texas" do not possess "acceptable SB 14 photo identification, representing 9.1 percent of registered voters"; and that "approximately 1.1 million voters in Texas neither possess acceptable SB 14 photo ID nor qualify under SB 14 for a disability-based exemption from showing ID at the polls."<sup>23</sup>

39. These estimates are very similar to those presented by Dr. Herron, but this similarity is largely attributable to the fact that Ansolabehere has chosen to report as findings his initial estimates that likewise do not account for other reasons for non-matches. Ansolabehere even implicitly admits the problem in his findings when he states: "The matching algorithm produces a NO MATCH list, which consists of all records on TEAM for which no matching record could be found in any identification database and which are not recorded in TEAM as having received a disability exemption. *Each record on this list is treated as an individual registered voter who lacks acceptable SB 14 photo ID* (emphasis added)."<sup>24</sup>

40. Given that Dr. Ansolabehere has contributed to the scholarly literature that documents the extent of deadwood and invalid entries in state voter registration rolls (cited above), it is particularly irresponsible and misleading for Ansolabehere to report as a finding that over one million voters in Texas do not possess acceptable ID under SB 14.

41. Ansolabehere's failure to be forthcoming about the "messy" nature of state registration rolls is all the more disconcerting given that buried in his own analysis are results that betray the exaggerated nature of his finding regarding the number of voters who lack requisite ID. In a subsequent section of his report that is included as a validation exercise regarding the estimated percentage point disparities in rates of possession of ID by race and ethnicity, Ansolabehere uses Catalist data to cross-check the validity of records in the TEAM database.<sup>25</sup> In doing so, Ansolabehere removes records that Catalist indicates are deceased, moved, etc. Ansolabehere also removes records of voters that are expected to be exempt from the ID requirements in SB 14. In other words, Ansolabehere is removing some of the non-matches that are expected to arise for reasons other than a voter who lacks necessary voter ID. The end result of this exercise yields a total of 664,004 non-matches that may represent persons who lack voter ID, or about 4.9% of the original 13,564,416 records in the TEAM database.<sup>26</sup>

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<sup>23</sup> Ansolabehere, p.2.

<sup>24</sup> Ansolabehere, p. 7.

<sup>25</sup> Ansolabehere, p. 37-44.

<sup>26</sup> Ansolabehere, p. 41-42 and Table VII.1.

42. For the moment, assume that the “hidden finding” of 664,004 registered voters who lack ID as reported by Ansolabehere in his subsequent validation exercise is not itself an over-estimate. This implies that Ansolabehere’s own research contained in his expert report indicates that his finding of 1.1 million voters who lack requisite ID is overstated by about 65%.<sup>27</sup> This is a rather large discrepancy that would seem to merit some explanation or caveat.

43. Further, Ansolabehere reports that the 664,004 registered voters who lack ID represent 6.2% of the relevant total. While 6.2% is already quite a bit lower than the 9% that is emphasized elsewhere in his report, the 6.2% figure is calculated using a denominator that excludes voters that are registered but not required to present SB 14 ID (e.g., those eligible for disability exemptions). In other words, comparing these two percentages is an exercise in comparing apples and oranges. Consequently, the hidden finding of 664,004 is an even lower percentage when applied to a more relevant base population.

44. Even so, this “hidden finding” of 664,004 voters who lack requisite voter ID is likely an over-estimate, as well. Dr. Ansolabehere has previously employed Catalist data to validate state voter registration and voting history records. In one recent study, Ansolabehere speculates that Catalist may not be able to identify a large number of “actual dead voters” on state registration rolls.<sup>28</sup> In another study, Ansolabehere notes that while Catalist may be able to identify some instances of deadwood by comparing state registration records to the National Change of Address (NCOA) registry, this procedure still misses people who do not register their move with the Post Office.<sup>29</sup> Consequently, Ansolabehere is well aware that the filters he employs to screen out deadwood from the TEAM database in his validation exercise are expected to miss some cases of invalid registrations. This in turn implies that the 664,004 non-matches described above will likewise over-state the number of registered voters that do not possess the requisite ID under SB 14.

45. While it is apparent that even the “hidden finding” in Ansolabehere’s report is an overestimate of the number of registered voters who lack requisite voter identification, the extent of the upward bias is not immediately apparent. However, my review of the evidence from the survey conducted by Dr. Matt Barreto and Dr. Gabriel Sanchez suggests that even Ansolabehere’s “hidden finding” dramatically overstates the number of registered voters who lack ID, perhaps by a factor of three or more (see below).

46. Consequently, while it is unclear exactly how exaggerated Dr. Ansolabehere’s findings are, it is clear that they are highly exaggerated. As with Herron, Dr. Ansolabehere conducts his analysis in a manner that is expected to produce a dramatic over-estimate of the number of real legally registered persons who lack sufficient ID under SB 14. Finally, Dr. Ansolabehere chooses to highlight his initial estimate of about 1.2 million (9%) registered voters who lack requisite ID, even though his own analysis reveals this claim to be highly exaggerated and misleading.

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<sup>27</sup>  $[(1,100,000 - 664,004)/664,004] * 100\%$

<sup>28</sup> Ansolabehere, Stephen and Eitan Hersh 2012. “The Quality of Voter Registration Records: A State-by-State Analysis,” CalTech/MIT Voting Technology Project Report (July 14, 2010).

<sup>29</sup> Ansolabehere, Stephen and Eitan Hersh 2012. “Validation: What Big Data Reveal about Survey Misreporting and the Real Electorate,” *Political Analysis*, 20: 437-459.

47. Dr. Bazelon bases his findings regarding the burden of SB 14 on the number of “Affected Registered Voters.” Bazelon defines “Affected Registered Voters” as “registered voters whose only option is to obtain a Required ID in order to vote.”<sup>30</sup> In turn, “Required ID” is defined by Bazelon to be those forms of ID required by SB 14.<sup>31</sup>

48. Bazelon determines the number of Affected Registered Voters by employing a no match list provided by the Department of Justice.<sup>32</sup> Bazelon reports that the TEAM database contains 13,564,410 voters; this figure is identical that cited by Herron. Bazelon then omits from his analysis those records that cannot be matched to Census blocks or are located in a Census block with a prison; this yields 13,403,109 “Registered Texas Voters.”<sup>33</sup> From this starting point, Bazelon reports that there are 1,232,231 non-matches and 1,103,491 non-matches that are not disability exempt.

49. The total number of persons who lack Required ID in Dr. Bazelon’s report is very similar to that reported by Dr. Ansolabehere; the difference appears to be attributable to the omission by Bazelon of those records that cannot be matched to Census blocks or are located in blocks with prisons. However, Dr. Bazelon does not acknowledge the well-established “messiness” in voter registration rolls that is expected to bias his findings. Consequently, his findings regarding the number voters without requisite ID under SB 14 are likewise exaggerated and unreliable.

50. Other expert reports submitted by the plaintiffs cite Ansolabehere’s misleading and highly exaggerated finding regarding the number of voters who lack requisite ID under SB 14.<sup>34</sup> In at least two instances, the experts are political scientists (Burden and Davidson) who should have the expertise to recognize that Ansolabehere has greatly over-stated the number of voters who lack ID.

51. In his expert report, Dr. Burden cites Ansolabehere’s highly exaggerated finding regarding the 1.2 million registered voters in Texas who lack requisite ID.<sup>35</sup> Burden does not provide any caveats, nor does he acknowledge any concerns regarding this biased and misleading over-estimate.

52. Chandler Davidson also uncritically cites Ansolabehere’s highly exaggerated finding that “approximately 1.2 million Texas registered voters lack an accepted form of SB 14 ID...”<sup>36</sup> Chandler likewise does not provide and caveats, nor does he express any qualms about this biased and misleading over-estimate.

53. As noted at the start of this section, any estimate involves error and the potential for bias. It is customary in scientific inquiry to acknowledge the existence of such error by providing some range for the estimated value. Contrary to this practice, experts for the plaintiff present the estimated number of voters who lack requisite ID under SB 14 as a specific number (e.g., 1.1 million or 1.2 million) or

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<sup>30</sup> Report of Coleman Bazelon, p. 3.

<sup>31</sup> Bazelon, p. 2.

<sup>32</sup> Bazelon, p. 6.

<sup>33</sup> Bazelon, p. 15 (Table 1).

<sup>34</sup> E.g., Report of Jane Henrici, p. 13.

<sup>35</sup> Report of Barry Burden, p.5 and p. 25.

<sup>36</sup> Report of Chandler Davidson, p. 41-42.

percentage of registered voters. This serves to understate the “messiness” inherent in the matching process and is therefore misleading regarding the confidence that should be placed in such estimates. However, far more problematic in my opinion is the failure of these experts to acknowledge the dramatic upward bias in these estimates. This obfuscation renders their findings unreliable and misleading.

#### *Public Opinion Survey Method*

54. In their expert report for the plaintiffs, Dr. Matt Barreto and Dr. Gabriel Sanchez present evidence from a survey of self-reported eligible voters in Texas. Based on this survey they find that approximately 1.2 million eligible voters in Texas lack the requisite ID under SB 14. However, this estimate is likely biased upward, since the methods employed by Barreto and Sanchez are likely to overstate the number of otherwise eligible voters who lack requisite ID for several reasons.

55. First, other than an initial screening question that asks if respondents are age 18 or older, “have lived in Texas over 30 days” and are citizens, Barreto and Sanchez do not seek to confirm the voting eligibility of respondents.<sup>37</sup> Such a check is possible, given that the survey includes questions about year of birth, residence and citizenship. For example, my examination of their data reveals that 210 respondents do not report their year of birth; 87 respondents do not report how long they have resided in Texas; and 66 respondents report that they were born in another country but do not report when they became citizens.<sup>38</sup> All of these cases represent failures to affirm eligibility, which at least renders the eligibility of these respondents suspect. Further, Barreto and Sanchez do not attempt to screen out respondents who may be registered to vote in other states. Nevertheless, Barreto and Sanchez assume that all of their respondents are indeed eligible voters in Texas.

56. Respondents are also asked about whether “official voter records at the Secretary of State’s office indicate that you are currently registered to vote here in Texas.”<sup>39</sup> Strictly speaking, respondents can’t really know the answer to this question. Further, a respondent that is not legally registered at their current residence (due to a recent move) could well answer affirmatively to this question. Also, it is well known that survey respondents over-report registration.<sup>40</sup>

57. In general, survey responses are subject to “motivated reasoning” by respondents; that is, respondents may systematically misreport on surveys in a manner that fits their preconceptions or preferences (ideological and partisan beliefs are particularly important drivers of motivated reasoning in

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<sup>37</sup> Barreto and Sanchez, “Texas Survey Instrument” p. 1.

<sup>38</sup> Several respondents also reported that they have lived in Texas longer than their self-reported year of birth indicates is possible. I ignore this discrepancy except to note that it underscores the inherent problems of reporting errors in surveys, as well as providing an indication that Barreto and Sanchez conduct their analysis of these survey data with excessive credulity.

<sup>39</sup> Barreto and Sanchez, “Texas Survey Instrument,” p. 1.

<sup>40</sup> Ansolabehere, Stephen and Eitan Hersh 2012. “Validation: What Big Data Reveal About Survey Misreporting and the Real Electorate,” *Political Analysis*, 20: 437-459.

surveys).<sup>41</sup> In the present context this implies that people who oppose voter ID laws very strongly may be motivated to report that they do not possess ID, even when they do. Likewise, people that support ID laws may misreport in the other direction. But since the vast majority of eligible voters do possess ID, the net effect of this misreporting is likely to result in an overestimate of the number of persons without the requisite ID under SB 14.

58. Yet another source of upward bias in Barreto and Sanchez's estimates of the number of respondents without requisite ID under SB 14 comes from the fact that they subject respondents to a lengthy and repetitive set of questions regarding multiple forms of ID. In some instances, respondents are even asked to produce an ID and examine it.<sup>42</sup> These are probably unexpected questions for "a short public opinion survey about important issues in Texas" and it is easy to imagine that not all respondents choose to cooperate by answering completely and honestly.<sup>43</sup> Given that an easy way to cut short this sequence of questions is to report not having a particular form of ID, Barreto and Sanchez may well overstate the number of persons who lack requisite voter ID.

59. Further, after subjecting respondents to a lengthy and repetitive set of questions about identification documents, Barreto and Sanchez then ask respondents whether there is any difference in the name on their ID and "your name as it *might* appear on the official voter registration card (emphasis added)."<sup>44</sup> This is a hypothetical question that presumably most respondents will have no means to answer definitively. Consequently, the responses to this question are highly suspect and may be particularly susceptible to motivated reasoning.

60. At first glance, the reported finding by Barreto and Sanchez that 1.2 million eligible voters lack requisite ID in Texas appears to be consistent with the findings reported by Ansolabehere, Herron and Bazelon. However, Barreto and Sanchez employ a different divisor than these other experts. Barreto and Sanchez use the results of their survey to extrapolate the number of citizens of voting age (CVAP) that lack voter ID in Texas, not the number of registered voters.<sup>45</sup>

61. Barreto and Sanchez use an estimate of CVAP from the 2008-2012 American Community Survey. In doing so, they likely understate the 2014 CVAP in Texas.<sup>46</sup> However, it is also well known that CVAP

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<sup>41</sup> E.g., Taber, Charles and Milton Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs," *American Journal of Political Science*, 50(3): 755-769; and Bolsen, Toby, James N. Druckman, and Fay Lomax Cook. 2014. "The Influence of Partisan Motivated Reasoning on Public Opinion," *Political Behavior*, 36: 235-262. Also see Beaulieu, Emily. 2014. "From Voter ID to Party ID: How Political Parties Affect Perceptions of Election Fraud in the U.S." *Electoral Studies*, 35: 24-32.

<sup>42</sup> Barreto and Sanchez, "Texas Survey Instrument," p. 4-5.

<sup>43</sup> Barreto and Sanchez do not report how many respondents fail to complete the survey after starting, but survey length, complexity and subject interest are all factors that are generally understood to affect the quality of responses in surveys (e.g., McCarty, Christopher, House, Mark, Harman, Jeffrey, and Scott Richards. 2006. "Effort in Phone Survey Response Rates: The Effects of Vendor and Client-Controlled Factors," *Field Methods*, 18: 172-188).

<sup>44</sup> Barreto and Sanchez, "Texas Survey Instrument," p. 6.

<sup>45</sup> Report of Matt Barreto and Gabriel Sanchez, p. 9.

<sup>46</sup> Barreto and Sanchez, p. 11.

overstates the voting eligible population (VEP).<sup>47</sup> It is unclear how these two different sources of error affect their estimate of the number of eligible voters without requisite voter ID.

62. Taking the findings in Barreto and Sanchez at face value permits a comparison to the estimates reported by other experts for the plaintiff. For example, Barreto and Sanchez report that 3.8% of registered voters do not possess requisite ID under SB 14.<sup>48</sup> This is much lower than the approximately 9% reported in Ansolabehere and elsewhere. This estimated percentage is even lower than Ansolabehere's "hidden finding" that 6.2% of eligible registered voters lack requisite ID (or 664,004).<sup>49</sup>

63. I have analyzed the survey data provided by Barreto and Sanchez along with their report for the purpose of performing some rudimentary quality checks. This exercise reveals several additional problems with their analysis. It also reveals that Barreto and Sanchez make several questionable assumptions regarding whether a respondent has ID; these assumptions serve to exaggerate both the estimated percentage of respondents without requisite ID and the differences in rates of ID possession by race and ethnicity.

64. Barreto and Sanchez incorrectly identify the number of white Hispanic respondents, as well as how the U.S. Census defines these categories. They state that:

"Out of the entire sample of 2,344 respondents there were 5 respondents who said they were both Hispanic and white. In this case, we include these as part of the Hispanic group and not as white, consistent with the United States Census."<sup>50</sup>

First, there are actually 7 respondents that self-identify as both white and Hispanic. Second, the U.S. Census does not conflate race and Hispanic origin. For example, both the Current Population Survey and the American Community Survey ask separate questions on race and Hispanic origin. In contrast, Barreto and Sanchez ask a single question that includes both race and Hispanic ethnicity (but permits multiple responses). As a result, it is unclear exactly how Barreto and Sanchez code the race and ethnicity of their respondents.

65. It is also unclear how Barreto and Sanchez classify the race and ethnicity of the 34 respondents who do not report a race or ethnicity. Further, it is unclear how they classify the 20 respondents who specify an "other" response, some of which are nationalities, or answers such as "Texan" or "hHuston" (sic).

66. I also find anomalies in the manner in which Barreto and Sanchez determine whether a respondent has the requisite ID under SB 14. In each case, they resolve ambiguity in a manner that leads to counting more respondents as not having requisite ID.

67. First, Barreto and Sanchez include individuals with suspended or revoked driver's licenses among the group that lacks requisite ID.<sup>51</sup> This is incorrect, since a suspended license still meets the SB 14

<sup>47</sup> McDonald, Michael P. and Samuel L. Popkin. 2002. "The Myth of the Vanishing Voter." *American Political Science Review*, 95(4): 963–74.

<sup>48</sup> Barreto and Sanchez, Appendix p. 1 (Table 1).

<sup>49</sup> Ansolabehere, Table VII.1.

<sup>50</sup> Barreto and Sanchez, footnote 7, p. 8.

definition of a “Texas driver license issued by the Texas Department of Public Safety (DPS).”<sup>52</sup> It is my understanding that in Texas some drivers may have their licenses confiscated at the time of suspension, but that other drivers instead receive a Notice of Suspension by mail from the Texas Department of Public Safety.<sup>53</sup> Consequently, it is quite possible for an individual with a suspended driver’s license to still be in possession of that license and to use it for the purposes of voter ID under SB 14. My understanding regarding the validity of a suspended license for voting identification purposes is also corroborated by one of the experts for the plaintiff, Dr. Allan Littman.<sup>54</sup>

68. Second, not all respondents provide a clear “Yes” or “No” answer when asked if they possess a valid and unexpired driver’s license; some respond that they do not know or simply refuse to answer. However, Barreto and Sanchez classify persons who do not unambiguously answer such questions as not possessing an ID. For example, 3 respondents do not report whether they have a driver’s license. Another 11 do not answer whether their license is valid, lost or stolen, revoked or canceled. Another 30 respondents do not answer whether their license is expired or updated in the last 6 years. Barreto and Sanchez treat all 44 of these cases as respondents without ID. This is a particularly unwarranted assumption that serves to exaggerate their count of the number of respondents without requisite ID.

69. Third, not all respondents are willing and able to examine their driver’s license and report whether it is expired or not; in these cases, Barreto and Sanchez ask: “Well, when was the last time you went and had your driver’s license updated? Was it in the last 6 years, since March 2008, or was it sometime BEFORE that?”<sup>55</sup> This question ignores the fact that licenses can be renewed online, by phone or through the mail.<sup>56</sup> Further, it strains credulity to expect that a respondent can answer definitively about events up to 6 years in the past. Further, respondents are not asked whether they have “renewed” their license in the last 6 years, or whether they first obtained their license in the last 6 years. My understanding is that a person can “update” the name, address or gender on their license with or without renewing the license at the same time.<sup>57</sup> Consequently, this survey question really doesn’t identify respondents that have not renewed their license in the last six years, even if it were reasonable to expect accurate recall of such distant events. There are another 6 respondents that are classified by Barreto and Sanchez as not possessing an unexpired driver’s license because of this poorly designed question.

70. Fourth, not all respondents provide a clear “Yes” or “No” answer when asked if they possess some other valid and unexpired form of ID. For example, 5 respondents do not answer whether they have an unexpired non-driver photo ID card from the DPS; 22 do not answer definitively whether their non-driver ID is expired or not; 10 do not answer whether they have a Texas Election Identification

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<sup>51</sup> A total of 15 respondents report that they have a suspended driver’s license.

<sup>52</sup> <http://votetexas.gov/register-to-vote/need-id/>; last viewed July 25, 2014.

<sup>53</sup> <http://www.dps.texas.gov/internetforms/Forms/DIC-25.pdf>; last viewed July, 25, 2014.

<sup>54</sup> Report by Allan Lichtman, p. 34.

<sup>55</sup> Barreto and Sanchez, “Texas Survey Instrument,” p. 4.

<sup>56</sup> <http://www.txdps.state.tx.us/DriverLicense/renewal.htm>; last viewed July 25, 2014.

<sup>57</sup> <http://www.txdps.state.tx.us/driverlicense/changes.htm>; last viewed July 25, 2014.



Certificate; 5 do not answer whether they have a passport; 21 do not answer definitively whether their passport is expired or not; 4 do not answer whether they have a military ID card; 5 do not answer whether their military ID is expired or not; 8 do not answer whether they have a concealed handgun license or a citizenship certificate; and 2 do not answer whether their concealed handgun license is expired or not. Once again, it is an unwarranted assumption to treat these respondents as if they do not have voter ID; doing so serves to exaggerate the number of respondents who do not have ID.

71. Barreto and Sanchez also ask respondents whether the name printed on their ID is an exact match to the name as “it would appear on your official voter registration card.” This again requires respondents to provide a definitive answer when they are most likely not simultaneously examining both their photo ID and official voter registration card. Consequently, answers to this question are particularly susceptible to misreporting.

72. Having identified several questionable assumptions regarding which respondents possess an unexpired ID, I next check the sensitivity of some of the findings in Tables 1-2 of Appendix A of the report by Barreto and Sanchez. Given the limited time available to me, I have not attempted to reexamine all of the findings in Barreto and Sanchez, nor is the intent of this analysis to correct all of the problems in their analysis. However, the examples chosen suffice to demonstrate the existence of an upward bias in their analysis. For this sensitivity analysis, I select four specifications that are intended as reasonable alternatives to some of the unwarranted assumptions made by Barreto and Sanchez.

73. In Replication 1, I define respondents without ID in the same manner as Barreto and Sanchez, except that I omit those respondents who give ambiguous responses to whether they have an unexpired ID. Specifically, I omit responses that give answers of “don’t know,” “maybe/not unsure/can’t remember” or outright refuse to provide an answer; I also omit those respondents that report having a suspended driver’s license, since it is unknown whether the respondent still has the license in question.

74. Replication 2 is identical to Replication 1, except that I follow Dr. Ansolabehere and take into account respondents who are eligible for a disability exemption or are eligible for vote by mail (age 65 and older). These respondents do not lack requisite ID, so are coded accordingly.

75. Replication 3 is identical to Replication 2, except that I drop any respondents that provide responses that render their eligibility to vote ambiguous, or who refuse to indicate their race and ethnicity. This includes any respondents that refuse to report their age, disability status, state of residence, or year of citizenship (where applicable). I also omit those respondents that report both not possessing requisite ID and report voting after the implementation of SB 14.

76. Replication 4 is similar to Replication 2, except that rather than dropping respondents that give ambiguous responses regarding ID, I code these as possessing requisite ID.

77. The results of applying these alternative definitions for which respondents do or do not lack an unexpired SB 14 ID are reported in Table 1. I reproduce the original results from Barreto and Sanchez for comparison.

**Table 1: Percent of Survey Respondents who DO NOT Possess a Valid and Unexpired License**

	White	Black	Hispanic	Total
Barreto and Sanchez, Table 1 in Appendix A	4.7%	8.4%	11.4%	7.2%
Replication 1	3.5 (1.1)	5.5 (1.6)	4.3 (1.2)	4.0 (0.8)
Replication 2	3.2 (1.0)	4.5 (1.4)	3.2 (1.1)	3.2 (0.7)
Replication 3	3.4 (1.1)	4.8 (1.6)	2.5 (1.0)	3.1 (0.7)
Replication 4	3.2 (1.0)	4.3 (1.4)	3.0 (1.1)	3.1 (0.7)

*Note:* Percent of self-reported voting eligible respondents. Weighted means using survey weights; standard errors in parentheses are from a weighted regression.

78. In every case, the alternative specifications indicate lower rates of voters who do not have unexpired ID. This exercise gives a sense of how sensitive Barreto and Sanchez's findings are to alternative and reasonable specifications. For example, compared to Replication 4, Barreto and Sanchez exaggerate the percentage of eligible voters who lack SB 14 ID by 132%.<sup>58</sup>

79. Of course, the estimated percentage of eligible voters generated by these alternative specifications is still subject to several of the upward biases identified above. Consequently, the actual percentage of eligible voters who lack an unexpired SB 14 ID is likely even smaller than any of the figures reported in Table 1.

80. In Table 2, I report the results of applying these same alternative definitions to the subsample of respondents who affirm that they are registered to vote. Once again, in every case the percentage of voters who do not have unexpired ID is lower than reported by Barreto and Sanchez.

**Table 2: Percent of Registered Survey Respondents who DO NOT Have a Valid and Unexpired License**

	White	Black	Hispanic	Total
Barreto and Sanchez, Table 1 in Appendix A	2.1%	4.9%	6.8%	3.8%
Replication 1	1.4 (0.7)	2.5 (1.0)	3.1 (1.1)	1.9 (0.5)
Replication 2	1.1 (0.7)	2.2 (1.0)	1.9 (0.9)	1.4 (0.5)
Replication 3	1.0 (0.7)	2.0 (1.1)	2.3 (1.1)	1.5 (0.5)
Replication 4	1.1 (0.7)	2.1 (0.9)	1.9 (0.9)	1.4 (0.5)

*Note:* Percent of self-reported voting eligible and registered respondents. Weighted means using survey weights; standard errors in parentheses are from a weighted regression.

<sup>58</sup> [100% \* (7.2 – 3.1)/3.1].

81. Taking the results in Table 2 at face value provides a check on the findings reported by other experts. For example, in contrast to the finding that about 9% of registered voters lack requisite ID reported by Ansolabehere, this exercise suggests that fewer than 2% of all registered voters lack SB 14 ID. In other words, re-analyzing the data in Barreto and Sanchez and taking the results at face value suggests that the findings reported by Ansolabehere are exaggerated by about 350%.<sup>59</sup> Of course, for the same reasons discussed above, the results of this sensitivity analysis are expected to overstate the actual number of registered voters who lack unexpired SB 14 ID.

82. I have demonstrated that Barreto and Sanchez make a number of questionable assumptions that serve to bias their estimate of the number of voters in Texas without requisite ID. I also demonstrate that the extent of the upward bias in their estimates is quite large. Further, this demonstration by no means corrects for all of the problems in their analysis. Consequently, the analysis in Barreto and Sanchez is unreliable and their findings regarding the number or percentage of voters without requisite ID are highly exaggerated and misleading.

***Summary of Section V: Experts for the plaintiffs assert that more than one million otherwise eligible voters in Texas lack SB 14 ID (or about 9% of registered voters). I demonstrate that these estimates are highly exaggerated. Moreover, I demonstrate that the methods employed by experts for the plaintiffs are expected to generate a large upward bias in the estimated number of eligible voters without ID. Given this, the analyses proffered by experts for the plaintiffs relating to the number or percent of voters who lack SB 14 ID is unreliable and misleading.***

## VI. Differences in the Rates of Possession of ID

83. The preceding section demonstrates that the challenges associated with credibly estimating eligible voters without SB 14 ID are quite daunting; these challenges are compounded when trying to estimate differences in rates of ID possession by race and ethnicity. The TEAM database does not include racial or ethnic identifiers, so once again experts for the plaintiff attempt to estimate these differences.

84. Any such estimate involves some degree of uncertainty and is subject to bias. In this section, I demonstrate that experts for the plaintiffs do not sufficiently acknowledge the uncertainty and bias in their estimates of differences in rates of possession of voter ID by race and ethnicity, nor do they take sufficient care to reduce the bias in their estimates. Consequently, the estimates of the number or percentage of voters in different racial or ethnic groups in Texas who lack requisite ID proffered by experts for the plaintiff are overstated and unreliable.

85. Experts for the plaintiffs employ three different methods for estimating the difference in rates of ID possession by race and ethnicity. The first attempts to estimate differences in rates of possession of ID by exploiting information on the racial and ethnic composition of geographic areas within Texas. The second attempts to match individual records to external data that does contain information on race and ethnicity. The third method involves analyzing responses to an opinion survey. I consider each of these methods in turn.

### *Estimating Differences Using Matching Methods*

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<sup>59</sup>  $[100\% * (9 - 2)/2]$ .

86. Dr. Bazelon bases his analysis on his own severely exaggerated list of “Affected Registered Voters.” Bazelon states: “Essentially, my method only detects a racial disparity based on where Affected Registered Voters live.”<sup>60</sup> However, given the serious deficiencies in Bazelon’s estimates of the number of registered voters who do not possess requisite voter ID, his analysis of differences in the rates of possession between white, black and Hispanic Texans is unreliable. However, even ignoring this fundamental and fatal flaw, there are other errors in Bazelon’s analysis that likely serve to exaggerate his reported difference in the rates of possession of ID across groups.

87. In order to assign a race and ethnicity to these individual observations, Bazelon links each record to a Census Block Group and assigns a probability that each record represents a white, black or Hispanic voter based on the proportion of registered voters of each category that are in that Census Block Group.<sup>61</sup> Bazelon employs registration data from the Current Population Survey.<sup>62</sup> As noted above, the CPS is expected to overstate registration, so this is another source of error and potential bias in Bazelon’s analysis.

88. I have already established that Bazelon’s estimate of the number of persons without ID is likely highly exaggerated and contains a large number of non-matches for reasons other than the lack of a requisite voter ID. To the extent that these non-matches are correlated with minority race or Hispanic ethnicity, then Bazelon’s estimated differences in rates of ID possession will also be biased upward.

89. However, even if the many and severe problems in Bazelon’s methods are ignored, his own analysis reveals evidence that is difficult to reconcile with the assertion that SB 14 is intended to be a racially discriminatory electoral strategy. Taking Bazelon’s estimates at face value, consider the number of registered non-Hispanic white voters that Bazelon estimates are adversely affected by SB 14. This estimate is larger than the similarly estimated number of either black or Hispanic affected voters (and nearly as large as the sum of those two groups).<sup>63</sup>

90. Further, according to Bazelon, non-Hispanic whites make up about 48% of the “EIC required” voters in Texas.<sup>64</sup> However, according to Barreto and Sanchez, non-Hispanic whites make up only about 45% of the citizen voting-age population in Texas (this is based on 2008-2012 ACS data, so an updated estimate would likely find that today non-Hispanic whites make up an even smaller percentage of CVAP).<sup>65</sup> Consequently, taking Bazelon’s analysis at face value suggests that non-Hispanic whites are disproportionately likely to lack SB 14 ID relative to their share of CVAP.

91. Bazelon reports the number and percent of “Affected Registered Voters” broken down by white, black and Hispanic voters, but he does not report similar figures for other races. However, it is possible to calculate the percent of “other race” voters in the Affected Registered Voters category. Based on the data presented in Table 1 of Bazelon’s report, approximately 6.7% of other minority voters are similarly

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<sup>60</sup> Bazelon, p. 13 and Appendix D.

<sup>61</sup> Bazelon, p. 13.

<sup>62</sup> Bazelon, p. 13.

<sup>63</sup> Bazelon, p. 15 (Table 3).

<sup>64</sup>  $[100\% * (530,636/1,103,491)]$ .

<sup>65</sup> Barreto and Sanchez, p. 11.

“Affected.”<sup>66</sup> This exercise is provided just to note that other minorities have the lowest rate of being affected by SB 14, according to Bazelon’s results.

92. While it is clear that Bazelon’s estimates of Affected Registered Voters are hopelessly flawed, it is not immediately clear just how exaggerated his findings are when it comes to the differences in rates of ID possession. In order to get a sense of the magnitude of the bias in Bazelon’s results, it is instructive to compare his estimates to those reported by Barreto and Sanchez (as well as my re-examination of their survey data). For example, Bazelon finds that more than 10% of black and Hispanic voters are affected by SB 14; in contrast, Barreto and Sanchez report that fewer than 7% are similarly affected, while my re-analysis suggests an even lower percentage. However, as emphasized throughout my report, these figures are all expected to be overstated.

93. Dr. Herron takes a somewhat different approach to estimating racial and ethnic differences in rates of ID possession. However, as with Bazelon, his analysis is based upon a highly exaggerated estimate of the number of voters who lack SB 14. Consequently, Herron’s analysis is likewise fundamentally and fatally flawed.

94. Even ignoring the deficiencies in the baseline estimates employed by Herron, there remain sources of likely bias that exaggerate the extent to which blacks and Hispanics lack ID relative to non-Hispanic whites. For example, to the extent that non-matches for reasons other than lack of ID are more frequent for records that are matched to disproportionately black or Hispanic geographic locations, then Herron’s method is expected to overstate the difference in rates of ID possession in a manner that makes it appear as though blacks and Hispanics are less likely to possess requisite voter ID.

95. Nevertheless, it is instructive to consider the implications of taking Dr. Herron’s estimates at face value, if only to get a sense of the magnitude of the bias in his findings. Herron reports several different estimates, so for ease of exposition I will focus his “conformable block group analysis” described in Table 5 and the surrounding text in his report.<sup>67</sup> Herron finds that the percentage of voters lacking SB 14 ID is about 5.6% for whites, 18.5% for blacks, and 15.4% for Hispanics. These percentages are very different than those presented by Bazelon and Barreto and Sanchez (as well as my re-analysis of the survey data in Barreto and Sanchez). Herron finds much higher rates of black and Hispanic voters who lack requisite ID, as well as the largest percentage differences for those groups compared to white voters. This underscores just how exaggerated Herron’s findings are, given that the percentages reported by these other experts have already been demonstrated to dramatically overstate these differences across racial and ethnic categories. Consequently, Herron’s findings regarding the difference in rates of ID possession by race and ethnicity are unreliable and highly misleading.

96. Dr. Ansolabehere employs two different methods for estimating differences in the rates of lack of SB 14 ID possession by race and Hispanic ethnicity. I discuss each in turn.

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<sup>66</sup>  $[(1,103,491 - 350,224 - 530,636 - 185,095)/(13,403,109 - 3,400,136 - 7,714,425 - 1,730,293)] * 100\%$

<sup>67</sup> Herron, p. 34-35.

97. The first method is very similar to that employed by Herron. Ansolabehere starts by assigning records in the TEAM database to Census Block Groups and estimates the differences in rates of possession of SB 14 ID via ecological regression analysis. Like Herron, Ansolabehere bases his analysis on a wildly exaggerated estimate of the number of persons who lack SB 14 ID. Consequently, Ansolabehere's analysis is also fundamentally and fatally flawed.

98. Even if the serious shortcomings in Ansolabehere's baseline estimates are ignored, his findings are likely to be biased in the same direction and for the same reason as Dr. Herron's. That is, to the extent that minority voters are more likely to be in the set of non-matches that occur for reasons other than the lack of SB 14 ID, the estimated differences in lack of ID possession by race will be exaggerated accordingly. For example, minorities may be more likely to move without submitting a formal change of address form to the post office.

99. Despite the flaws Ansolabehere's ecological regression analysis, it is instructive to consider his findings at face value, if only to get a sense of the magnitude of the bias in his estimates of the percentages of voters who lack SB 14 ID by race and ethnicity. In Table VI.1 of his report, Ansolabehere finds that about 5.1% of non-Hispanic whites, 14.7% of blacks and 10.0% of Hispanics are estimated to lack SB 14 ID. These percentages imply a much larger difference between black and non-Hispanic white voters than reported by Bazelon (9.6% vs. 3.8%), but a much smaller difference than reported by Herron (9.6% vs. 12.9%). Similarly, the estimated difference between Hispanic and non-Hispanic white voters vary according to Ansolabehere, Bazelon and Herron (4.9% vs. 3.4% vs. 9.8%, respectively). The wide range of reported differences does not inspire confidence, especially since these experts are all employing similar methods.

100. Dr. Ansolabehere also attempts to estimate the difference in rates of possession of SB 14 ID by matching TEAM records to Catalist data. The findings reported in Table V1.2 of Ansolabehere's report are similar to those derived from his ecological regression analysis. Dr. Ansolabehere finds that about 7.4% of non-Hispanic whites, 15.1% of blacks and 11.3% of Hispanics lack SB 14 ID.

101. Taking Ansolabehere's analysis at face value again reveals results that are difficult to reconcile with the claim that SB 14 is intended to be a racially discriminatory electoral strategy. Ansolabehere estimates that more non-Hispanic white registered voters lack SB 14 ID than black and Hispanic registered voters combined.<sup>68</sup> Further, Ansolabehere estimates that non-Hispanic whites comprise 49.9% of registered voters without SB 14 ID.<sup>69</sup> As noted above, this is greater than the non-Hispanic white share of the citizen voting-age population in Texas (according to Barreto and Sanchez). Further, Ansolabehere's findings also indicate that other minorities (non-black, non-Hispanic) are the least likely group to lack SB 14 ID.

102. However, once Ansolabehere makes an effort to remove non-matches that are expected to occur for reasons other than a voter who lacks requisite ID, the estimated number and percentages of voters without ID in each group are much lower. However, just comparing the percentages reported in Table

<sup>68</sup> Ansolabehere, Table VI.2;  $[614,522 > (258,648 + 343,097)]$ .

<sup>69</sup> Ansolabehere, Table Vi.2;  $[100\% * (614,522/1,232,246)]$ .

VI.2 to Table VII.1 will understate this drop, since Ansolabehere changes the denominator in calculating those percentages. It is more instructive to observe the percentage change in the number of voters estimated to be without requisite ID with and without this correction. For example, the estimated number of non-Hispanic whites without requisite ID is about 94% higher in column 1 of Table VI.2 than in column 4 of Table VII.1.<sup>70</sup> Similar calculations reveal that the findings reported in Table VI.2 for black, Hispanic and other voters are about 81%, 76% and 84% higher (respectively) than reported in Table VII.1. These are very large differences, yet Ansolabehere chooses to emphasize the most exaggerated findings that even his own sensitivity analysis reveals to be unreliable. If ever a sensitivity analysis were to reveal some problem with findings, this would be such a case.

103. The hidden findings in Table VII.1 of Ansolabehere's report demonstrate just how exaggerated are his other reported findings (and by extension the findings in Bazelon and Herron). However, even the estimates in Table VII.1 are likely to dramatically overstate the number of voters who lack requisite ID and the percentage differences across racial and ethnic groups.

104. It has already been demonstrated in the preceding section of this report that Ansolabehere's hidden finding is likely to overstate the estimated number of persons without ID. However, the estimated percentage differences across groups are even more problematic. This is in part because the number of remaining non-matches for reasons other than a voter that lacks requisite ID may be correlated with minority race or Hispanic ethnicity. But more importantly, Ansolabehere fails to account for the quality of race and ethnicity estimates in the Catalist data.

105. The expert report submitted by Dr. Ghitza, he notes Catalist continuously updates its database, including voting records, "as frequently as every week."<sup>71</sup> Ghitza also states that the probability that a record is coded correctly as corresponding to a black or Hispanic individual is much lower than for non-Hispanic whites.<sup>72</sup> Further, to the extent that these probabilities are even lower for individuals with low socioeconomic status, it follows that the race and ethnicity of individuals that appear to lack ID are particularly uncertain.

106. The error known to exist in Catalist estimates of race and ethnicity is not addressed by Ansolabehere. Further, the fact that these errors are systematic in that they are expected to be correlated with both lack of ID and minority status compounds this problem. By ignoring the quality of the race and Hispanic ethnicity coding from Catalist, Ansolabehere likely understates the standard errors in his estimated differences in rates of ID possession (and therefore overstates the statistical significance of these differences).

107. One possible method for addressing this problem with race and ethnicity identifiers in the Catalist data would be to weight observations by the probability that race or ethnicity is estimated correctly. Another possibility would be to estimate an instrumental variables regression, where the instruments are the probability that a record has been coded correctly. In either case, it is my expectation that these

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<sup>70</sup> [100% \* (614,522 – 317,057)/317,057)].

<sup>71</sup> Report by Yair Ghitza, paragraph 6.

<sup>72</sup> Report submitted by Yair Ghitza, paragraph 15.



adjustments would have the potential to dramatically reduce the estimated differences in rates of ID possession and\or the statistical significance of the estimated difference.

108. In his report, Ansolabehere emphasize what are expected to be his most exaggerated estimates of both the number of voters without ID in by race and ethnicity, as well as the differences in these rates. Further, his estimated differences using Catalist data fail to account for the particularly low quality of race and ethnicity estimates for minority voters. Consequently, Ansolabehere's analysis of the differences in rates of ID possession by race and ethnicity is unreliable and misleading.

#### *Estimating Differences Using Survey Responses*

109. Dr. Barreto and Dr. Sanchez analyze responses to their survey in order to estimate the differences rates of ID possession by race and ethnicity. As demonstrated in the preceding section, Barreto and Sanchez make a number of unwarranted assumptions that serve to greatly exaggerate the estimated number of respondents without voter ID.

110. My re-analysis of the survey data reveals that reasonable alternative specifications generate estimates of the number of voters that are much smaller (see Tables 1 and 2 above). Moreover, the estimated percentages of registered voters without ID are dramatically lower than those reported by experts for the plaintiff. This corroborates my repeated concern that experts for the plaintiff employ methods that are expected to exaggerate the number of voters without ID, as well as the differences in rates of possession of ID by race and ethnicity.

111. Barreto and Sanchez test for differences in rates of ID possession by racial or ethnic group using a logistic regression. I use this same test to check whether the observed differences in Replications 1-4 in Tables 1 and 2 are statistically significant (i.e.,  $p < .10$ ). In every case, the observed differences are not statistically significant. In other words, the null hypothesis that black and\or Hispanic voters are no more likely to lack requisite voter ID than non-Hispanic white voters cannot be rejected.

112. My re-examination of the survey data in Barreto and Sanchez confirms that experts for the plaintiff have employed methods that greatly exaggerate the estimated differences in rates of ID possession across racial and ethnic groups. Using the same data and statistical tests as Barreto and Sanchez, even a minor correction to one of their many unwarranted assumptions reveals that there are no statistically significant differences in rates of ID possession among non-Hispanic white, black or Hispanic respondents.

***Summary of Section VI: Experts for the plaintiffs assert that black and Hispanic voters in Texas are significantly more likely to be without requisite voter ID under SB 14. These estimated differences vary considerably across experts; however, I demonstrate that all of these estimates are highly exaggerated. Moreover, I demonstrate that the methods employed by experts for the plaintiffs are expected to yield exaggerated estimates of the differences in rates of ID possession by race and ethnicity. In contrast, my re-examination of the survey data reported by Barreto and Sanchez reveals no statistically significant difference in rates of ID possession by race or ethnicity. Consequently, the analyses proffered by experts for the plaintiffs relating to the disproportionate number of black and Hispanic voters who lack requisite ID under SB 14 ID are unreliable and misleading.***

## VII. Costs of Obtaining ID

113. Experts for the plaintiff argue that there are costs of obtaining voter ID that are more burdensome for black and Hispanic voters. However, there are fundamental theoretical and empirical problems with these claims.

114. Several experts for the plaintiff argue that the costs of obtaining ID, even a free Election Identification Certificate (EIC), are substantial and particularly burdensome for minority voters in Texas.<sup>73</sup> However, these claims ignore both the ability of individuals to economize on travel time and any concomitant benefits from replacing other missing documents, such as a birth certificate. Consequently, the estimated costs of obtaining voter ID are exaggerated.

115. One cost of obtaining cost an EIC is the opportunity cost of travel time. Both Dr. Chatman and Dr. Webster analyze the travel time in minutes for different types of voters. However, Dr. Bazelon correctly notes that the opportunity costs of time vary by race and ethnicity, so this must be taken into consideration.<sup>74</sup>

116. Dr. Bazelon estimates that the travel cost for obtaining an EIC are on average about \$42.<sup>75</sup> Assuming for the moment that this is correct, it interesting to note that Bazelon finds that “Affected” black voters in Texas have lower travel costs than “Affected” white voters (i.e., \$28.17 v. \$48.79). Consequently, Bazelon’s own estimates imply that white voters face costs that are 73% higher than for black voters.<sup>76</sup> Furthermore, Bazelon estimates that the number of Affected Registered white voters is 63% greater than the number of Affected Registered black voters.<sup>77</sup> This contradicts the claims made by several experts that travel costs are higher for minority voters than for white voters in Texas.

117. Bazelon argues that a given black voter is more than twice as likely to require an EIC compared to a non-Hispanic white voter, so that the expected travel costs are higher for black voters in Texas.<sup>78</sup> However, this claim is based on his highly exaggerated estimates of the number of affected voters by race and ethnicity. I have already demonstrated that the estimates made by several experts regarding the difference rates of possession by race and ethnicity are likewise exaggerated. Furthermore, my re-examination of Barreto and Sanchez’s survey data reveals no significant difference in the rates of requisite ID possession by race and ethnicity, whether for registered voters or for all eligible voters. Consequently, there is no credible evidence presented by experts for the plaintiffs that expected travel costs are higher for black or Hispanic voters.

118. Bazelon also argues that the principle of diminishing marginal utility implies that a dollar cost imposed on a higher income individual imposes a greater utility burden than a dollar cost imposed on a lower income individual.<sup>79</sup> Bazelon is assuming that imaginary units of utility can be measured and

<sup>73</sup> E.g. the reports submitted by Daniel Chatman, Jane Henrici, Kevin Jewell, and Gerald Webster.

<sup>74</sup> Bazelon, p. 22.

<sup>75</sup> Bazelon, Table 6 on p. 29.

<sup>76</sup>  $[100\% * (48.79 - 28.17)/28.17]$ .

<sup>77</sup> Bazelon, Table 1, p. 15;  $[100\% * (530,636 - 185,095)]$ .

<sup>78</sup> Bazelon, p. 29.

<sup>79</sup> Bazelon, p. 8.

compared across individuals (i.e., that utility is cardinal and comparable). However, this claim does not follow from standard economic theory. In contrast, standard microeconomic theory assumes only ordinal utility; that is individuals can rank items, but these rankings cannot be directly compared across different individuals.<sup>80</sup>

119. Experts for the plaintiff adopt methodologies that exaggerate the travel costs of obtaining IDs. In every instance, these estimates are founded on the assumption that an individual makes a dedicated trip solely for the purpose of obtaining an EIC. This is ridiculous. If a rational person desires to travel to multiple destinations (e.g. the bank, the grocery store and the post office), then they endeavor to minimize travel time by combining activities into as few trips as possible. In general, the costs of travel can be cut dramatically by combining the errand of obtaining an EIC with another activity. In other words, experts for the plaintiff do not estimate the relevant *marginal costs* of obtaining an EIC.

120. Experts for the plaintiffs also fail to consider how the potential costs of obtaining identification may be ameliorated by the actions of neighbors, friends, relatives, co-workers, political groups, and religious or civic organizations. For example, an individual may travel with a friend or relative who also desires to obtain an EIC or has some nearby errand to run. This not only reduces total travel costs, but may yield benefits from time spent together. Alternatively, a civic or political group may organize rides or otherwise facilitate the task of obtaining ID. Individuals desiring assistance in obtaining an EIC are presumably capable of seeking and finding some assistance. Instead, experts for the plaintiff base their estimates of travel costs on the assumption that individuals are isolated, hapless and irrational.

121. Another cost of obtaining an EIC is for the replacement of lost supporting documents, at least for those individuals who do not possess supporting documents needed to obtain an EIC. For example, some individuals may wish to replace a lost birth certificate in order to obtain an EIC. The state of Texas offers a \$3 birth certificate for the purpose of obtaining an EIC, or a certified regular birth certificate for \$22. The latter document can be used for other purposes over the lifetime of an individual. Consequently, this \$22 cost should be apportioned over the expected number of uses that an individual may have in the future. Other than for the \$3 birth certificate, it is therefore misleading to assume that the entirety of the cost of any supporting ID is attributable entirely to the cost of obtaining an EIC.

122. An EIC is also valid for 6 years and can be renewed. This means that the costs of obtaining an EIC should be apportioned in some manner over this time. One way of doing so would be divide the costs by the number of elections that a voter will be able to participate in during this 6 year period (perhaps discounting future benefits). Alternatively, the costs of obtaining ID may be apportioned over the number of races and ballot questions that the voter is now able to participate in over a 6 year period. In either case, the net cost of obtaining ID per-election or per-contest will be dramatically lower than the one-time fixed cost examined by experts for the plaintiff.

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<sup>80</sup> E.g., Goolsbie, Austan, Steve Levitt, and Chad Syverson. 2013. *Microeconomics*. Worth Publishers (New York, NY); Varian, Hal R. 2014. *Intermediate Microeconomics: A Modern Approach*, 9<sup>th</sup> Edition. W.W. Norton and Company (New York, NY); and Samuelson, Paul.A. 1947. *Foundations of Economic Analysis*. Harvard University Press (Cambridge, MA).

123. Even so, obtaining a free EIC will entail some sort of cost. But experts for the plaintiffs do not provide any sense of when such costs are “too high.” It cannot simply be the existence of costs that is the problem; all activities involve some opportunity cost, including registering and voting.

124. Finally, experts for the plaintiff do not consider why some individuals lack basic supporting documents, such as a birth certificate. Does the individual bear any responsibility for maintaining a record of citizenship and voter eligibility? What if the same person loses their ID documents multiple times, is the State of Texas responsible?

***Summary of Section VII: Experts for the plaintiffs assert that there are substantial costs of obtaining voter identification and that these costs are particularly burdensome for black and Hispanic voters in Texas. However, these claims ignore the ability of individuals to economize such costs as well as the potential for outside assistance. Further, the costs of obtaining voter ID should be apportioned over multiple years and elections. Consequently, experts for the plaintiff greatly exaggerate the net costs of obtaining ID. Moreover, the estimated travel costs to obtain a free EIC are found to be higher for white voters versus black voters.***

## VIII. Voter ID as an Obstacle to Voting

128. Experts for the plaintiffs argue that i) a small increase in the cost of voting from SB 14 may have a large effect on turnout, and ii) the differential costs of obtaining ID for black and Hispanic voters will disproportionately suppress turnout among black and Hispanic voters in Texas. However, there are serious theoretical and empirical problems with both these claims.

### *The Calculus of Voting*

129. One of the most elementary theories of voting posits that voters weigh the costs and benefits of voting when deciding whether to vote.<sup>81</sup> Several experts for the plaintiffs cite this Downsian theory of voting to support the contention that the costs of obtaining voter ID, ---even a free EIC--- , may have the effect of reducing turnout.<sup>82</sup>

130. However, there are two very different versions of this calculus of voting. The original formulation of the calculus of voting attributed to Downs may be summarized as follows:

A rational individual will choose to vote if  $(p \cdot B - C) > 0$ , where:

$p$  = the probability that a voter casts a decisive (e.g., deciding) vote,

$B$  = the benefit to the voter of having her preferred candidate win, and

$C$  = the cost of voting for the individual.

<sup>81</sup> Anthony Downs. 1957. *An Economic Theory of Democracy*. Harper (New York, NY).

<sup>82</sup> Barreto and Sanchez, p. 25; Bazelon, p. 6-7; Burden, p. 4-5; and Webster, p. 13.

In this simple characterization of the decision to vote, the only benefits of voting are the instrumental benefits of actually influencing the outcome of the election.

131. Even the originator of the simple calculus of voting theory, Anthony Downs, noticed that his economic theory of democracy was problematic; he describes his theory as “positive but not descriptive.”<sup>83</sup> In other words, even Downs recognizes that his theory does not generate accurate predictions. As noted by Riker and Ordeshook, two political scientists who subsequently modify Downs original theory, “in science, one would expect to discard positive theories that are inadequate as descriptions.”<sup>84</sup> Or, put another way, “Unfortunately for (the Downsian) theory, people do vote.”<sup>85</sup>

132. There are different approaches for explaining the problems in the original Downsian model, but these approaches typically refer to the “Paradox of Voting.” For example, in large-scale elections, the probability of casting a decisive vote (a vote that makes or breaks a tie) approaches zero.<sup>86</sup> This makes the expected instrumental benefit of voting (pB) very small. Consequently, a voter would choose to vote only if the costs of voting are even smaller. In this simple version of the calculus of voting, it must be true that only a very few people with the lowest costs of voting choose to vote. Further, even a small change in the cost of voting may reduce turnout dramatically because the expected instrumental benefits of voting are so small. However, this theory is falsified given that many people choose to vote, even in large-scale elections.<sup>87</sup> This phenomenon of people voting even though it is irrational to do so is sometimes referred to as the Paradox of Voting (or the Paradox of Voter Turnout).

132. There is yet another problem with the simple Downsian model. If only a very few people choose to vote, then the probability of casting a decisive vote becomes large. This inflates the expected instrumental benefits of voting (pB) and creates a situation where once again, many people wish to vote. But that in turn would cause the probability of casting a decisive vote to shrink back toward zero. In other words, the model may not have a stable equilibrium; that is, turnout is unpredictable, even in response to an increase in costs. This phenomenon is also sometimes referred to as the Paradox of Voting.<sup>88</sup>

133. A slightly more sophisticated version of the calculus of voting is typically attributed to Riker and Ordeshook.<sup>89</sup> They solve the paradox of voting by positing that there is some non-instrumental benefit of voting; for example, a sense of a patriotic duty that confers a value on the act of voting even if it is futile. In this conception, the original Downsian model is modified to become:

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<sup>83</sup> Downs, p. 34.

<sup>84</sup> See fn. 2 in: Riker, William and Peter C. Ordeshook. 1968. “A Theory of the Calculus of Voting,” *American Political Science Review*, 62(1): 25-42.

<sup>85</sup> Uhlaner, Carole. 1989. “Rational Turnout: The Neglected Role of Groups,” *American Journal of Political Science*, 33(2): 390-422.

<sup>86</sup> E.g., for a recent calculation of this probability, see: Gelman, Andrew, Nate Silver and Aaron Edlin. 2012. “What is the Probability that Your Vote Will Make a Difference?” *Economic Inquiry*, 50(2): 321-326.

<sup>87</sup> E.g., Green, Donald and Ian Shapiro. 1994. *Pathologies of Rational Choice*. Yale university Press (New Haven, CT).

<sup>88</sup> The intransitivity of majority rule, an unrelated concept, is also sometimes referred to as the Paradox of Voting.

<sup>89</sup> Riker, William and Peter C. Ordeshook. 1968. “A Theory of the Calculus of Voting,” *American Political Science Review*, 62(1): 25-42.

A rational individual will choose to vote if  $(p \cdot B - C) + D > 0$ , where:

$p$  = the probability that a voter casts a decisive (e.g., deciding) vote,

$B$  = the benefit to the voter of having her preferred candidate win,

$C$  = the cost of voting for the individual, and

$D$  = the non-instrumental value of voting.

134. Under this modified calculus of voting, it is possible for the instrumental value of voting to be essentially zero, but it would still be rational to vote, provided the intrinsic value of voting is sufficiently large. Importantly, under the modified theory of voting, a small change in the cost of voting is expected to result in some small reduction in turnout. This is because in general, not everyone will be just barely motivated to vote and therefore hypersensitive to small changes. Some individuals will have very large values of  $D$  and so will vote even when the costs of voting are large. Other individuals will have very small values of  $D$  and so will not vote even when the costs are quite small. Consequently, this modified theory does imply that the costs of voting are related to turnout, but the model does not generate the dramatic prediction that even a small change in the cost of voting will result in a large change in turnout.

135. The theory of voting has advanced some in the last several decades.<sup>90</sup> Even so, the *modified* Downsian model remains a useful tool for analyzing turnout in elections. Dr. Burden demonstrates the continued currency of the modified Downsian model with his discussion of the calculus of voting.<sup>91</sup>

136. However, other experts harken back to the defunct original Downsian model in order to argue that SB 14 may have a dramatic impact on turnout. For example, Bazelon states that: “Recent scholarship finds that ‘Under [the “calculus of voting”], even small increases in the costs of voting can deter a person from voting, since the benefits of voting are so slight.”<sup>92</sup> Barreto and Sanchez state that: “It is important to note that, with relatively low perceived benefits to voting among the electorate, even small increases to barriers to the ballot box can have a marked impact on turnout.”<sup>93</sup> These claims are simply not supported by recent or modern scholarship on the determinants of voting.

137. Dr. Burden echoes these misguided claims by stating that:

“This ‘calculus of voting’ framework suggests that for many individuals the decision to vote is made ‘on the margins.’ This is because the decision to vote is viewed as a

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<sup>90</sup> E.g., Riker, William and Peter C. Ordeshook. 1973. *An Introduction to the Positive Theory of Voting*. Prentice-Hall (Englewood Cliffs, NJ); Matsusaka, John. 1995. “Explaining Voter Turnout Patterns: An Information Theory,” *Public Choice*, 84: 91-117; Dhillon, Amrita and Susana Peralta. 2002. “Economic Theories of Voter Turnout,” *Economic Journal*, 112: F332-F352; Feddersen, Timothy. 2004. “Rational Choice Theory and the Paradox of Not Voting,” *Journal of Economic Perspectives*, 18: 99-112; and Geys, Benny. 2006. “‘Rational’ Theories of Voter Turnout: A Review,” *Political Studies Review*, 4: 16-35.

<sup>91</sup> Burden, p. 4-5.

<sup>92</sup> Bazelon, fn. 12, p. 6-7; Bazelon is in turn quoting from the recent voter ID verdict in Wisconsin, *Frank v. Walker* WL 1775432 at 17 (E.D. Wis. Apr. 29 2014).

<sup>93</sup> Barreto and Sanchez, p. 25.

‘low cost, low benefit calculation.’ Small changes in costs may alter the likelihood dramatically.”<sup>94</sup>

In this passage, Burden is quoting (and paraphrasing) John Aldrich, a political scientist who was writing in 1993.<sup>95</sup> However, Aldrich later argues in the same study that “... the low cost, low-benefit nature of the turnout decision really means that most of the action is, in fact, in the intrinsic values of voting per se (i.e., in C and D terms). After all, these apply directly to the voter, regardless.” In other words, marginal voters are those individuals for whom (D - C) is very close to zero; therefore, a small change in C affects the turnout decision of only these marginal voters and so is unlikely to yield a “dramatic” change in turnout.

138. This subsequent argument by Aldrich regarding the importance of the non-instrumental or intrinsic benefits of voting (D) has been borne out by recent scholarship. A growing literature in political science analyzes field experiments on various get-out-the-vote (GOTV) tactics. In general, eligible voters treated with messages highlighting the civic duty to vote or activating social pressure to vote are significantly more likely to turnout compared to control groups of eligible voters.<sup>96</sup>

139. In the modern or modified version of the calculus of voting, whether an individual votes or not depends on whether  $(pB + D) > C$ . This differs from the original Downsian framework in that the total benefits of voting ( $pB + D$ ) may be very large, even when the expected instrumental benefits ( $pB$ ) are close to zero. Therefore, it no longer follows that a small change in the cost of voting will lead to a dramatic change in turnout. Consequently, Dr. Burden does not accurately convey the implications of the modified Downsian model that he articulates in his report.

140. By referencing Aldrich, Burden is reaching backward into the past and skipping over the fundamental lessons from much more recent empirical scholarship on the determinants of voting. In general, post-registration election procedures (e.g., early voting, extended polling hours, vote-by-mail, etc.) have fairly modest, insignificant or even perverse effects on voter turnout.<sup>97</sup> Judging from his

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<sup>94</sup> Burden, p. 5.

<sup>95</sup> Aldrich, John. 1993. “Rational Choice and Turnout,” *American Journal of Political Science*, 37(1): 246-278.

<sup>96</sup> E.g., Green, Donald and Alan Gerber. 2004. *Get Out the Vote*. The Brookings Institution (Washington, D.C.); Panagopoulos, Costas, Christopher W. Larimer and Meghan Condon. 2014. “Social Pressure, Descriptive Norms, and Voter Mobilization,” *Political Behavior*, 36: 451-469.

<sup>97</sup> E.g., Gronke, Paul, Eva Galannos-Rosenbaum and Peter A. Miller. 2007. “Early Voting and Turnout,” *PS: Political Science & Politics*, 40(4): 639-645; Fitzgerald, Mary. 2005. “Greater Convenience But Not Greater Turnout: The Impact of Alternative Voting Methods on Electoral Participation in the United States,” *American Politics Research*, 33(6): 842-867; Primo, David, Matthew Jacobsmeier and Jeffrey Milyo. 2007. “Estimating the Impact of State Policies and Institutions with Mixed-Level Data,” *State Politics and Policy Quarterly*, 7(4): 446-459; and Traugott, Michael W. 2004, “Why Electoral Reform Has Failed: If You Build It, Will They Come?” In: *Rethinking The Vote: The Politics and Prospects of American Election Reform*, eds. Ann N. Crigler, Marion I. Just, and Edward J. McCaffery, Oxford University Press (New York, NY). However, also see: McNulty, John E., Conor M. Dowling and Margaret H.



published research, Dr. Burden is well aware of this literature, as well as the importance of non-instrumental determinants of voting.<sup>98</sup> Therefore it is quite puzzling that he would make an argument that is based on the discredited early Downsian model of voting; in doing so, Burden is simply not making use of his expertise.

141. Given the recent and well-known findings in the scholarly literature regarding the weak effects of many post-registration election procedures, it is also puzzling that Barreto and Sanchez state that the simple version of the Downsian theory "... has been *verified* over time by political scientists who have identified institutional constraints (e.g. registration and voting requirements) as the chief source of cost imposition to voters. (emphasis added)"<sup>99</sup> This statement is highly misleading and not consistent with their expertise as scholars of American politics.

142. Furthermore, Barreto and Sanchez note that state voter registration laws impose costs on voters and therefore assert that such laws have large negative effects on turnout.<sup>100</sup> In support of this claim, they cite Piven and Cloward (1988) and Rosenstone and Wolfinger (1978).<sup>101</sup> However, recent empirical studies find much more modest effects of voter registration on turnout.<sup>102</sup>

#### *Differential Costs of Voting and Turnout*

143. Yet another errant claim made by several experts for the plaintiffs is that increased costs of voting for black and Hispanic voters necessarily depresses turnout for these groups relative to non-Hispanic white voters.<sup>103</sup> The modified version of the Downsian model generates an ambiguous prediction regarding how an increase in costs will affect different groups of voters. I demonstrate this with two hypothetical examples:

144. Hypothetical Example 1:

(a) First, consider two groups of voters with identical distributions of the total benefits of voting ( $pB + D$ ), but different costs of voting. Let these two groups be called white and black, and let the costs of

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Ariotti. 2014. "Driving Saints to Sin: How Increasing the Difficulty of Voting Dissuades Even the Most Motivated Voters," *Political Analysis*, 17 (4): 435-455.

<sup>98</sup> Burden, Barry, David T. Canon, Kenneth Mayer, and Donald P. Moynihan. 2014. "Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of Election Reform," *American Journal of Political Science*, 58(1): 95-109.

<sup>99</sup> Barreto and Sanchez, p. 26.

<sup>100</sup> Barreto and Sanchez, p. 26;

<sup>101</sup> Piven, Frances Fox, and Richard A. Cloward. 1988. *Why Americans Don't Vote*. Pantheon Books (New York); and Rosenstone, Steven and Raymond Wolfinger. 1978. "The Effect of Registration on Voter Turnout." *American Political Science Review*, 72 (1), 22-45.

<sup>102</sup> Ansolabehere, Stephen and David Konisky. 2006. "The Introduction of Voter Registration and Its Effect on Turnout," *Political Analysis*, 14 (1): 83-100; and Burden, Barry and Jacob Neiheisel. 2013. "Election Administration and the Pure Effect of Voter Registration on Turnout," *Political Research Quarterly*, 66(1): 77-90.

<sup>103</sup> Burden, p. 29; Burton, p. 44.; and Lichtman, p. 9. For a similar claim, see Ansolabehere, p. 51.

voting be higher for black voters than white voters. Further assume that the benefits and costs of voting are always constrained to values such that aggregate turnout is positive.

(b) For any distribution of the benefits of voting throughout the population, this will imply that white voters have a higher turnout than black voters.

(c) For sake of exposition, now consider an increase in the costs of voting that applies to both groups equally. Again, for any distribution of the benefits of voting, this implies that turnout goes down in each group. However, whether the number of voters adversely effected is greater for the white group or black group depends on the distribution of total benefits and the particular values for the costs of voting. Likewise the percentage of voters adversely affected may be higher or lower for the black group compared to the white group.

(d) Finally, consider a case where the distribution of benefits and costs are such that an equal increase in costs results in a greater (percentage) reduction in turnout for white voters. If instead the costs of voting increase more for the black group than the white group (but costs are identical within groups), it is indeed possible that the (percentage) reduction in turnout will be greater for black voters than white voters. However, there will be a range of changes in the differential costs of voting that yield a greater (percentage) reduction in turnout for white voters compared to black voters.

#### 145. Hypothetical Example 2:

(a) First, consider two groups of voters with different distributions of the total benefits of voting ( $pB + D$ ), but identical costs of voting. Let these two groups be called white and black, and let the distribution of benefits be such that median value is greater for the white group than the black group. Further assume that the benefits and costs of voting are always constrained to values such that aggregate turnout is positive.

(b) Now, whether turnout is higher for the white group or the black group depends on the particular distribution of total benefits for each group.

(c) Consider a case such that turnout is lower for the black group than the white group. Now consider a change in the costs of voting that is identical for all voters. Once again, it is possible for the number or percentage of affected black voters to be greater or lower compared to white voters. The result depends on the particular distributions of total benefits and the particular values of the costs of voting.

(d) Next consider a case such that the identical increase in costs yields a greater (percentage) reduction in turnout for the white group compared to the black group. If instead, the increase in costs is identical within groups but higher for the black group, then it is possible that this differential change in costs results in a greater (percentage) reduction in turnout for black voters compared to white voters. However, there will be a range of changes in the differential costs of voting that yield a greater (percentage) reduction in turnout for white voters compared to black voters.

146. These two examples are sufficient to demonstrate that the Downsian theory of voting does not generate the predictions that experts for the plaintiffs assume. In particular, the existence of higher turnout among non-Hispanic white voters does not imply lower costs of voting for that group compared to black voters or Hispanic voters. Further, an identical increase in the costs of voting for all voters does not necessarily lead to a greater reduction in turnout for those groups relative to white voters. Finally, even a differential increase in the costs of voting for black and Hispanic voters does not necessarily lead to a greater reduction in turnout for those groups relative to non-Hispanic white voters.

147. As a group, experts for the plaintiffs devote a great deal of effort to attempting to demonstrate that SB 14 imposes higher costs of voting on black and Hispanic voters than non-Hispanic voters. But the theory of voting that these experts rely on does not predict that SB 14 will adversely affect turnout among black and Hispanic voters more so than for white voters. Even within the framework established by the experts for the plaintiffs, the theoretical effects of SB 14 on relative turnout across groups are ambiguous.

#### *Implications of Voter ID for Voter Turnout*

148. As a group, experts for the plaintiffs assume that SB 14 only has the effect of raising the costs of voting. It has been demonstrated that even in this scenario, the question of whether voter ID laws like SB 14 have the effect of suppressing minority votes in some disproportionate manner is an empirical one. Turnout among black or Hispanic voters may be more or less affected than turnout among non-Hispanic white voters. However, if voter ID laws only have the effect of increasing costs, then turnout is expected to go down for all groups.

149. The assumption that voter ID laws only increase costs is unwarranted. Voter ID laws like SB 14 may affect the intrinsic benefits of voting in multiple ways. For example, to the extent that SB 14 increases confidence in the integrity of the voting process, or otherwise heightens the salience of voting, the non-instrumental benefits of voting will go up, as well.<sup>104</sup> Further, voter ID laws may motivate political entrepreneurs and advocacy groups to engage in additional voter mobilization efforts. Such efforts may include voter education and encouragement, or efforts to reduce the costs of voting by offering rides to the polls or to the DPS (for voters needing an EIC). In fact, as one of the experts for the plaintiffs, SB 14 mandates a statewide voter education campaign on voter ID.<sup>105</sup> Consequently, the effect of SB 14 on the net benefits of voting is itself an empirical question.

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<sup>104</sup> E.g., Citrin, Jack, Donald Green and Morris Levy. 2014. "The Effects of Voter ID Notification on Voter Turnout: Results from a Large-Scale Field Experiment," *Election Law Journal*, 13(2): 228-242; and Milyo, Jeffrey. 2007. "The Effects of Photographic Identification on Voter Turnout in Indiana: A County-Level Analysis," Institute of Public Policy Report 10-2007, University of Missouri (Columbia, MO).

<sup>105</sup> Report of T. Ransom Cornish, p. 7.

150. Citrin et al (2014) conduct a unique field experiment that confirms the potential positive effects of voter ID laws on turnout.<sup>106</sup> The experiment was conducted in 2012 in precincts along the Tennessee-Virginia border with heavily African American populations. The study compares whether individuals treated with notices regarding the need for voter ID at the polls were more or less likely to vote compared to a control group. The authors find “no evidence that calling attention to voter identification requirements dissuades voters from voting.” Further, the study finds that “informing low-propensity voters of new identification requirements raises turnout by approximately one percentage point.” Moreover, “Messages providing details about ID requirements and offering to help recipients obtain acceptable ID appear somewhat more effective than messages only pointing out the need to bring proof of ID.” Interestingly, the positive treatment effects on turnout are larger in Tennessee, a state that has a so-called strict photo ID law.

151. There is a growing empirical literature that examines the effects of voter ID laws on voter turnout. Overall, the findings in this literature are decidedly mixed.<sup>107</sup> However, several recent studies report that overall voter turnout rates are either unaffected (i.e., no statistically significant difference) or positively affected by state voter ID laws.<sup>108</sup> Of note, two such studies were conducted by experts for the plaintiffs, but not cited by these experts in their reports.<sup>109</sup> In addition, Dr. Ansolabehere has conducted related research on the incidence of people who cite ID problems as the reason for not voting.<sup>110</sup> He has concluded that: “Voter ID does not appear to present a significant barrier to voting.”<sup>111</sup> There is also mixed evidence regarding any differential effect of state voter ID laws on black and Hispanic voters.<sup>112</sup> For example, Alvarez et al. emphasize:

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<sup>106</sup> Citrin et al. 2014.

<sup>107</sup> E.g. see the recent reviews in: Citrin et al. 2014; and Hershey, Marjorie Randon. 2009. “What We Know about Voter-ID Laws, Registration, and Turnout,” *PS: Political Science*, 42(1): 87-91.

<sup>108</sup> E.g., Ansolabehere, Stephen 2009. “Effects of Identification Requirements on Voting: Evidence from the Experiences of Voters on Election Day,” *PS: Political Science*, 42(1): 127-130; Mycoff, Jason D., Michael W. Wagner, and David C. Wilson. 2009. “The Empirical Effects of Voter-ID Laws: Present or Absent,” *PS: Political Science*, 42(1): 121-126; Larocca, Roger and John S. Klemanski. 2011. “U.S. State Election Reform and Turnout in Presidential Elections,” *State Politics and Policy*, 11(1): 76-101; and Alvarez, Michael R., Delia Bailey and Jonathan Katz. 2008. “The Effect of Voter Identification Laws on Turnout,” Voting Technology Project Working Paper #57, Caltech (Pasadena, CA).

<sup>109</sup> Erickson, Robert and Lorraine C. Minnite. 2009. “Modeling Problems in the Voter Identification ---Voter Turnout Debate,” *Election Law Journal*, 8(2): 85-101; and Burden, Barry, C., David T. Canon., Kenneth R. Mayer and Donald P. Moynihan. 2014. “Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of Election Reform,” *American Journal of Political Science*, 58(1): 95-109.

<sup>110</sup> Ansolabehere, Stephen 2009. “Effects of Identification Requirements on Voting: Evidence from the Experiences of Voters on Election Day,” *PS: Political Science*, 42(1): 127-130; and Ansolabehere, Stephen. 2008. “Access Versus Integrity in Voter Identification Requirements,” *New York University Annual Survey of American Law*, 63(4): 613-630.

<sup>111</sup> Ansolabehere, 2009. P 129.

<sup>112</sup> E.g., Alvarez, Michael R., Delia Bailey and Jonathan Katz. 2008. “The Effect of Voter Identification Laws on Turnout,” Voting Technology Project Working Paper #57, Caltech (Pasadena, CA); and Hood, M.V. and Charles S. Bullock. 2012. “Much Ado about Nothing? An Empirical Assessment of the Georgia Voter Identification Statute,” *Legislative Studies Quarterly*, 12(4): 394-414. Also see, Ansolabehere, Stephen. 2008. “Access Versus Integrity in Voter Identification Requirements,” *New York University Annual Survey of American Law*, 63(4): 613-630.

“This is an important result. Controlling for the factors usually seen in models of voter participation, especially education and income, we see no evidence that strict voter identification requirements are racially discriminatory.”<sup>113</sup>

Consequently, there is no strong and consistent evidence that state voter ID laws reduce overall turnout, or that such laws suppress black and Hispanic turnout relative to Non-Hispanic white turnout.

152. It is instructive to note that until the recent flurry of studies on state voter ID laws, political scientists have shown remarkably little interest in voter identification as a determinant of turnout. For example, there is a longstanding scholarly empirical literature which examines turnout differences across countries, but ignores voter identification as a possible determinant of such differences.<sup>114</sup> In fact, in a recent meta-analysis of 83 such studies, differences in voter identification are not even mentioned as factors that might influence differences in turnout across countries.<sup>115</sup>

153. It is telling that none of the 17 experts for the plaintiffs cite the empirical literature on the effects of state voter ID laws on voter turnout. After all, “The true measure of the effects of ID requirements lies in the rate at which such rules exclude or prevent people from voting.”<sup>116</sup> The fact that experts for the plaintiffs do not discuss these studies corroborates my own view that the weight of evidence does not support their claim that voter ID laws impose only costs on voters and therefore decrease turnout (especially among black and Hispanic voters).

154. It is also telling that none of the 17 experts for the plaintiffs attempt to conduct their own original analysis of the effects of state voter ID laws on voter turnout. For example, several experts work with multiple years of data from the ACS, CPS or CCES, but none of them attempt to estimate the treatment effects of “strict photo ID” laws on voter turnout (and differences in turnout by race and ethnicity). Dr. Ansolabehere works extensively with multiple years of Catalist data, but does not attempt to conduct a similar study of the treatment effects of voter ID on turnout. Moreover, the fact that there have been several elections in Texas since the implementation of SB 14 provides a potential “natural experiment” for analyzing the impact of SB 14 on voter turnout in Texas. Further, because Catalist data are updated continuously, Ansolabehere might have even conducted a before-and-after analysis of the effects of SB 14 in Texas on voter turnout and differences in turnout by race and ethnicity. Similarly, Barreto and Sanchez included questions about voting before and after the implementation of SB 14 in their survey, but they do not attempt to analyze the effect of SB 14 on turnout or differences in turnout by race and ethnicity.

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<sup>113</sup> Alvarez et al. 2008. P. 18.

<sup>114</sup> E.g., Powell, G. Bingham. 1986. “American Voter Turnout in Comparative Perspective,” *American Political Science Review*, 80: 17-44.; and Blaise, Andre. 2006. “What Affects Voter Turnout?” *Annual Review of Political Science*, 9: 111-125.

<sup>115</sup> Gey, Benny 2006. “Explaining Voter Turnout: A Review of Aggregate-Level Research,” *Electoral Studies*, 25(4): 637-663.

<sup>116</sup> Ansolabehere, 2008, p. 623.

155. It is my expectation that such original data analyses will not yield convincing evidence that is consistent with the plaintiffs' arguments. The fact that multiple experts have the requisite data and skills to conduct such tests but choose not to do so suggests that they concur in my judgment. The fact that none of the experts even cite existing relevant studies of the effects of voter ID on turnout is further corroboration that a careful examination of the evidence does not support their arguments.

***Summary of Section VIII: Experts for the plaintiffs argue that a small increase in the cost of voting from SB 14 will have the effect of suppressing turnout among blacks and Hispanics in Texas. However, the primary support for these claims is a defunct theory of voting from more than 50 years ago. I demonstrate that the theoretical effects of SB 14 on turnout are ambiguous, so that the claims regarding turnout can only be evaluated empirically. However, the most relevant empirical literature on the effects of voter ID laws and turnout provides no strong or consistent support for these claims. Instead, recent evidence suggests that state voter ID laws may have a mobilizing effect on voter turnout, even or especially among minority voters. The experts for the plaintiffs fail to acknowledge this directly relevant scholarly literature. Experts for the plaintiffs also fail to conduct any systematic statistical analysis of the treatment effects of state voter ID laws on turnout in their reports. For example, there have been several elections since the implementation of SB 14 in Texas; these elections provide a "natural experiment" for analyzing the impact of SB 14 on voter turnout. Taken together, these failures call into question the reliability of the experts for the plaintiffs.***

## **IX. Racially Discriminatory Intent**

156. Several experts for the plaintiff argue that SB 14 was passed with the intent to substantially and disproportionately suppress turnout among otherwise eligible black and Hispanic voters.<sup>117</sup> The limited time available to me does not permit a detailed examination of the theory and evidence offered to support this claim. However, my analysis in this report is sufficient to severely undercut the arguments made by experts for the plaintiffs. Even so, I have identified several problems with the arguments made by experts for the plaintiffs with regard to this claim. In my opinion, the arguments made in support of this claim are particularly tendentious and ignore the value of demagoguery on voter ID for Democratic politicians and others. Further, in my opinion, experts for the plaintiffs ignore the most important factor behind the passage of SB 14, its popularity. In my opinion, it is well-known that voter ID laws are in general popular with the general public, although it is possible that support among the black and Hispanic population has fallen off owing to the exaggerated arguments made in opposition to voter ID.

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<sup>117</sup> E.g, see the reports by Burden, Burton, Davidson, Korbel, and Lichtman.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

Executed on August 1, 2014.

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